DOCUMENT RESUME

ED 202 544 JC 810 318

AUTHOR	White, Douglas; And Others
TITLE	Health Instruction Packages: Instructional Development & Other Information for Teachers.
INSTITUTION	League for Innovation in the Community Coll., Los Angeles, Calif.
SPONS AGENCY	Kellogg Foundation, Battle Creek, Mich.
PUB DATE	76
NOTE	99p.
EDRS PRICE	MF01/PC04 Plus Postage.
DESCRIPTORS	*Adult Learning; Adult Students; *Behavioral Objectives; *Drug Abuse; Inservice Teacher Education; *Learning Modules; *Objective Tests; Task Analysis; Teacher Education; Test Construction; Test Items; Two Year Colleges
IDENTIFIERS	Blooms Taxonomy; *Health Instruction Exchange

ABSTRACT

Text, illustrations, and exercises are utilized in a set of five learning modules designed to instruct college faculty and education students in selected instructional development skills, the characteristics of adult learners, and the effects of frequently abused drugs. The first module, "How to Write Structured Response Test Items" by Douglas White, helps the instructor develop skills in writing multiple choice, dichotomous choice, and matching test questions. The second module, "How to Write Behavioral Objectives" by Douglas White, examines the use of Bloom's Taxonomy and task analysis. The third module, "Using a Resource Management Format to Produce Modules" by Darryl Sink, explains how to incorporate a general overview of the purposes of the module, an outline of learning objectives and activities, and a criterion-referenced evaluation methodology when developing learning modules. The fourth module, "The Adult Learner" by Martha Newby, examines the characteristics of adult students and offers guidance in using this information in evaluating and developing courses and programs. The fifth module, "Basic Drug Information for Teachers" by Colleen Wiessner, describes the effects of hallucinogens, stimulants, downers, narcotics, and solvents. Each of the modules, which take 20 to 30 minutes to complete, provide reinforcement exercises and a post-test. (JP)

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ED202544

HEALTH INSTRUCTION PACKAGES:

Instructional Development

& Other Information for Teachers

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JC 810 318

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HOW TO WRITE STRUCTURED RESPONSE TEST ITEMS

By

Douglas White, Ed.D.

Lauren Richardson, Illustrator

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TITLE:	How to Write Structured Response Test Items
AUTHOR:	Doug White
INSTITUTION:	Lane Community College Eugene, Oregon
INTENDED STUDENTS:	Faculty (beginning): education students
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	None
REVISED:	October 1, 1977

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The construction of good test items is an art. The skills required to construct good items however, are the same as those found in effective teaching. As faculty members, you are required to have a thorough grasp of the subject matter, a clear concept of desired learning outcomes, a psychological understanding of your students, sound judgment, persistence and touch of creativity!

In this package the overall objective is to develop your skills in writing structured response test items. More specifically you will be able to:

1. Define the phrase "structured response test item."
2. List examples of multiple choice, dichotomous choice and matching exercise test items.
3. Distinguish between multiple choice, dichotomous choice and matching exercise test items.

In addition, it is also hoped that you will be able to relate your feelings to others, exchanging written and verbal comments about one another's written test items. Finally, you will have the opportunity to write and tell why you feel more confident about writing structured response items.

1

Test items require different responses from learners. In this unit we are concerned with structured response test items. A structured response test item is considered to be:

> A method for measuring the knowledge, understanding and application of the learner in a particular subject or content area by limiting the number of possible responses that can be made to given statements or questions.

Practice Question 1

Sometimes it is difficult to understand the intent or meaning of definitions that others give to you. Why don't you re-write the definition of a structured response test item in your own words.

ANSWER ⟶ ◯ If your comments defining a structured response test item included "a limiting of possible responses to a given statement or question" you have the concept that we are trying to convey.

Examples of structured response test items include:

1) Dichotomous choice (only two choices)
2) Multiple-choice (more than two choices)
3) Matching exercise

Dichotomous - choice items are those which require one of two possible responses. Examples of possible dichotomous responses frequently are

True-False

Yes-No

Same-Opposite

On-Off

Fact-Opinion

Here are some examples of dichotomous choice test items:

1. The rima glottidis is the narrowest space between the right and left vocal cords or true vocal cord of the larynx.

   a. True
   b. False

2. If 60 % of a number is 9, is the number less than 9?

   a. Yes
   b. No

3. In most dental complications, the administration of analgesics is only one factor in the management of the patient's condition.

   a. Fact
   b. Opinion

Practice Question 2

Think about the definition of dichotomous choice test items. Now put your own definition of dichotomous choice into words.

○ If your definition included words which indicated that dichotomous choice items require one of two possible choices, you're still with us!

Practice Question 3

Now give three examples of dichotomous choice questions using the choices provided:

1) "True-False":

2) "Yes-No":

3/ "Fact-Opinion":

○ It's O.K. - writing fact and opinion examples is not easy

Multiple choice items can be defined as:

statements or questions having more than two opinions of potential answers to the question or completions of the statement

An example of a multiple-choice item is given below:

Starling's Law of the Heart states that the

____ 1. initial length of the cardiac muscle fibers affects the strength of contraction.

____ 2. strength of contraction depends on the strength of the ventricular muscles.

____ 3. heart rate depends directly on thickness of the ventricle.

STOP _____

Re-read the definition of a multiple-choice item. Define the phrase multiple-choice and then give an example.

Practice Question 4

1) Your definition of a multiple-choice item:

2) Your multiple-choice item example:

○ If your definition and example included more than two options of potential answers to a question or completions of a statement you are ready to continue!

Matching exercise test items present several problems and several solutions. In its usual form, the matching exercise consists of two parallel columns and each word or number in one column being matched to a word, phrase or sentence in the other column.

The following example will illustrate the matching exercise test item definition:

Place the number indicating the answer from the right column in front of the appropriate letter in the left column. Each number may be used only once.

_____A. antibiotic sensitivity test	1. 325,000/mm^3
_____B. lactobacillus count	2. serious infection
_____C. normal leukocyte count	3. 7,000/mm^3
_____D. normal thrombocytic count	4. 45%
_____E. normal hematocrit	5. dental caries

Practice Question 5

1) Try defining matching exercise test items in writing.

2) Now try your skill at writing a matching exercise test question with appropriate instructions.

○ "Presenting several problems and several solutions in parallel fashion with items in one column being matched with items in the other."

Most students in their first attempt have difficulty writing a matching exercise test item. The difficulty often comes in writing the directions. Check your item with the example above.

You have now had some practice at writing structured response test items. Let's see if you can pick from a list of sample test items those which are

D-Dichotomous

MC-Multiple choice

ME-Matching exercise

Practice Question 6

---A. In secondary amyloidosis which of the following is <u>not</u> principally involved?
   a. Larynx
   b. Parathyroids
   c. Adrenals

---B. High intestinal phosphate is a factor in increasing active transport of calcium ion across the intestinal epithelium.
   a. True
   b. False
   c. Need more information to answer

---C. Litmus paper turns red in an acid solution
   a. True
   b. False

---D. On the line to the left of each phrase in column A, write the letter of the word in column B that matches the phrase. Each word in column B may be used only once.

Column A	Column B
____ 1) Name of the answer in addition problems.	a. difference
____ 2) Name of the answer in subtraction problems.	b. quotient
____ 3) Name of the answer in division problems.	c. sum
____ 4) Name of the answer in multiplication problems.	d. product

STOP

Your answers in example 6 should be as follows:

MC
MC
D
ME

If you had any difficulty with this or any other section, go back and review before you take the post-test.

POST-TEST

1. In your own words, define the phrase "structured response test item."

2. Give an example of a multiple choice, dichotomous choice and matching exercise test item.

   a. Multiple choice example:

   b. Dichotomous choice example:

   c. Matching exercise example:

3. From the list of sample test items provided, distinguish which items could be classified in the following manner:

   D---Dichotomous choice item
   MC---Multiple choice item
   ME---Matching exercise item

_____ a. It is unnecessary to examine previous radiographs of a patient since they are out of date.
   (1) True
   (2) False

_____ b. Which of the following is contained in greatest proportion in tooth enamel?
   (1) Calcium fluoride
   (2) Calcium phosphate
   (3) Calcium carbonate
   (4) None of the above

_____ c. Which of the following represents an example of a simple tubular gland?
   (1) Parotid
   (2) Liver
   (3) Pancreas

_____ d. Laryngeal edema is likely to be improved by administration of antihistamine.
   (1) True
   (2) False

_____ e. Match the numbers corresponding to the proper position of the ausculatory valve areas.

(a) aortic	(1) 5th left interspace
(b) pulmonic	(2) Right fifth interspace
(c) mitral	(3) Left second interspace
(d) tricuspid	(4) Right second interspace

ANSWERS TO POST-TEST

1. If your comments defining a structured response test item included "a limiting of possible responses to a given statement or question" you have the concept that we are trying to convey.

2. a. Should include understandable statement and more than two answer choices.

   b. Should include understandable statement and only two answer choices.

   c. Should include directions, several problems paired with several solutions.

3. a. D

   b. MC

   c. MC

   d. D

   e. ME

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HOW TO WRITE BEHAVIORAL OBJECTIVES

PART II - ADVANCED SKILLS

by

DOUGLAS G. WHITE, Ed. D

Douglas G. White, Ed. D.
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TITLE OF PACKAGE:	How to Write Behavioral Objectives Part II
AUTHOR:	Douglas G. White, Ed.D.
INSTITUTION:	Lane Community College Eugene, Ore.
INTENDED STUDENTS:	College Faculty
ESTIMATED WORKING TIME:	45 minutes
MATERIALS NEEDED:	A colleague to evaluate Preparing Instructional Objectives by Robert Mager, Palo Alto: Fearon Publishers, 1962.
REVISED:	November 1, 1977

NOTE: Prerequisite to use of this unit is the ability to write cognitive, psychomotor and attitudinal behavioral objectives. Self instruction for these requisites may be found in How to Write Behavioral Objectives, Part I by Douglas G. White Ed.D.

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TOPIC: How To Write Behavioral Objectives

Purpose: The ability to specify what it is you want in terms of desired outcomes by your student is often a difficult and frustrating task. You think that what you have said is clear, but the student does not clearly understand your verbal or written intentions. We all need assistance in developing skills which will allow us to focus or "hone in" on a desired student behavior. This unit will help polish the skills of writing behavioral objectives.

When you have successfully completed this learning package, you will be able to:

Write performance-based objectives appropriate to your teaching discipline. More specifically, you will be able to write behavioral objectives which will enable you to:

1. Utilize Bloom's Taxonomy of Educational Objectives in preparing behavioral objectives for

   A. knowledge
   B. comprehension
   C. application

2. Perform task analyses to assist in preparing behavioral objectives.

In addition, you will be allowed to relate your feelings to others, exchanging comments about one another's written objectives. Finally, you will have the opportunity to write and tell why you feel more confident about writing behavioral objectives.

If you read Part I of this series you will remember that you read Chapter I from Mager's Preparing Instructional Objectives. In that chapter and others he mentions the word taxonomy. Do you know the meaning of "taxonomy"?

Taxonomy generally means to classify or refer to a classification. For example, Bloom's Taxonomy of Educational Objectives lists a hierarchy of cognitive objectives. In effect, it implies that you can teach far more complex objectives than memorization and recall.

EX. 1

In your own words, define taxonomy.

_____

_____

_____

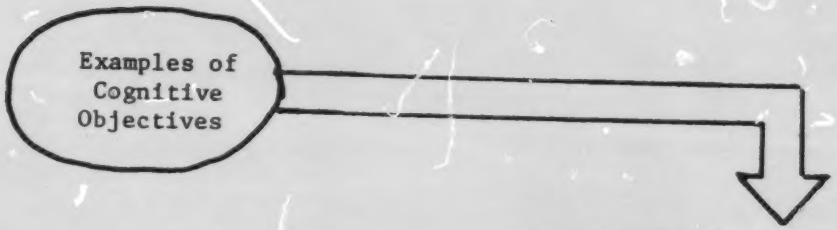
Below is a summary of the cognitive taxonomy. Read and study it for a moment noting that knowledge and comprehension are two of the simplest levels of mental activity.

Bloom's taxonomy of educational objectives:

Knowledge -- to recall and recognize.
Comprehension -- to translate from one form to another.
Application -- to apply or use information in a new situation.
Analysis -- to examine a complex and break it down into its parts.
Synthesis -- to put together information in a unique or novel way to solve a problem.
Evaluation -- to make a judgment about something in light of some criteria.

At what level do you think you teach? At what level do you think most teachers teach? I have not observed your teaching techniques, but most teachers teach at the lowest level, knowledge.

Look at the examples given below and note the differences between the first three levels:



1. Knowledge (to <u>recall</u>):

   . The student will define the meaning of the word amalgam.

   .. The student will underline those words which relate to the anatomy of the eye.

2. Comprehension (to translate from one form to another):

   . The student will locate the metacarpals on his right hand.

   .. Given a technical description of a disease state, the student will describe verbally in non-technical terms the same disease state.

3. Application (to <u>use</u> what is learned in a <u>new</u> situation):

   . The student will sketch the bones of the inner ear.

   .. The student will demonstrate proper pronunciation of the following words:

      1) hemodialysis
      2) quinidine
      3) quadritubercular

EX. 2

Try your hand at classifying the following instructional objectives into one of the following levels: Knowledge, Comprehension or Application. Write "K", "C", or "A" in the spaces provided.

_____ 1) Identify, on your body, the general location of the phalanges and the metatarsals.

_____ 2) Given the names of two contemporary surgeons, the student will identify the surgical technique associated with each individual.

_____ 3) The student will explain in his own words the meaning of the phrase "preventive dentistry."

_____ 4) The student will present his views on proprietary hospitals at health care delivery meeting.

The intended answers are:

1) Comprehension (identify and locate).
2) Knowledge (recall and memorization).
3) Comprehension (translation of stated phrase into own words).
4) Application (use of knowledge in a new situation).

Did you know that any objective can be broken down into the specific tasks needed to accomplish it? Consider this objective for a minute: "The student will kick a football." To do this he must have mastered the skills listed on the next page--

1) He can raise his foot to contact a ball that has been dropped from his hand. . .

2) He can coordinate eye, hand and foot movements. . .

3) He can maintain proper posture which will allow him. . .

4) He wants to kick a football. . .

EX. 3

In the space provided below, write an objective for your students. Any objective will do provided that you have not written it previously:

OBJECTIVE: _____

_____

_____

_____

EX. 4

Try brainstorming a list of all sub-tasks or prerequisite skills and attitudes needed to accomplish that objective. Write as fast as you can.

PREREQUISITE SKILLS AND ATTITUDES

_____

_____

_____

_____

_____

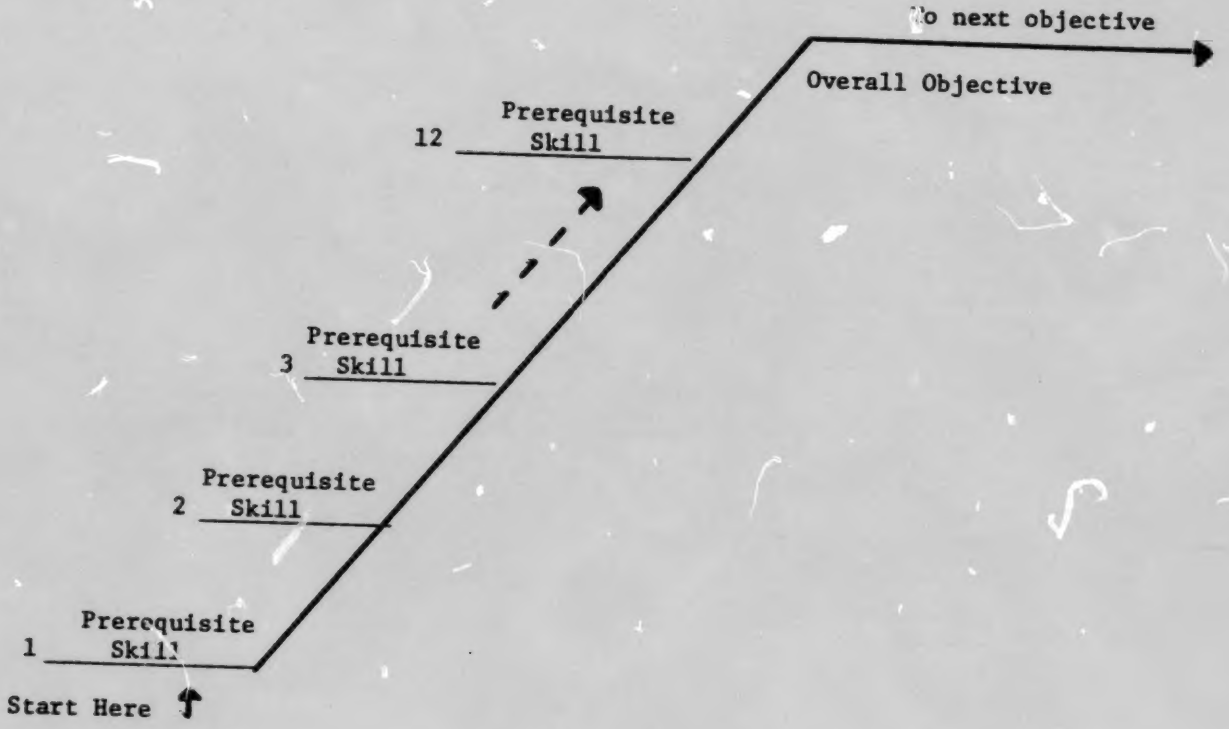
_____

_____

Did you notice something about the list you just made?

1. The prerequisite skills and attitudes are all potential objectives.

2. The prerequisite skills could be ranked or sequenced in terms of which skill comes first. You could arrange them in the following manner:



"NOW HEAR THIS". . . . . .

3. You can draw a line at any point to separate those skills you <u>will</u> teach from those you feel must be taught prior to instruction. You might want to teach only the last three steps.

This process has been called performing a task analysis. Some instructors select their objectives only after doing such a task analysis.

EX. 5

In the space provided below write some objectives that pertain to your discipline which are different from any you have previously written. They may be related OR they may be quite different from each other.

OBJECTIVES

COGNITIVE:

1) _____

_____.

2) _____

_____.

Remember that word list?

PSYCHOMOTOR:

1) _____

_____.

2) _____

_____.

Shows physical ability.

ATTITUDINAL:

1) _____

_____.

Feeling + emotion.

Did you find writing these objectives to be a difficult task. Erasers are cheap! Practice really makes writing objectives easier.

OBJECTIVES FOR YOUR CLASS

I think you are now ready to compose some objectives for your own group of students. Listed below are some possible verbs which could be used in stating your outcomes in COGNITIVE terms.

KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	SYNTHESIS	EVALUATION
define	describe	apply	analyze	compare	judge
list	explain	demonstrate	categorize	propose	appraise
name	identify	dramatize	contrast	design	evaluate
relate	locate	employ	calculate	formulate	rate
repeat	restate	interpret	diagram	arrange	compare
record	recognize	operate	experiment	assemble	value
recall	report	practice	examine	collect	revise
underline	tell	schedule	inventory	construct	score
	translate	sketch	relate	create	select
		shop	question	organize	choose
			solve	manage	assess
				prepare	estimate
					measure

Adapted from a list by Marybelle Savage

(words, words, words--)

Exchange your written objectives with an individual whom you feel will give an objective evaluation of your attempts. Please summarize these comments below:

EVAL. #1

1.

2.

3.

4.

5.

You now have a general idea of some weaknesses and strengths that lie within your written behavioral objectives. If you care to solicit additional comments, please do so. Write these suggestions below:

EVAL. #2

1.

2.

3.

4.

5.

As you recall, our purpose was to help you specify the task that you want your student to DO. I hope this exercise has been helpful because you have

1. Written behavioral objectives;

2. Gathered evaluative information about how "good" or "bad" your objectives seem;

Now, in the space provided below, express your feelings as to why you feel more confident about writing behavioral objectives.

CONGRATULATIONS!

POST TEST
PART II

1. Write two behavioral objectives appropriate to your teaching discipline at each of the six levels specified in Bloom's Taxonomy of Educational Objectives -- Cognitive Domain.

   A. 1.
      2.

   B. 1.
      2.

   C. 1.
      2.

   D. 1.
      2.

   E. 1.
      2.

   F. 1.
      2.

2. Perform a task analysis for two of the objectives you stated in question #1.

3. Describe and explain the method(s) you would employ to solicit written responses from students and peers regarding the clarity of your stated objectives.

Score yourself:

3 for a very acceptable answer
2 for an acceptable answer
1 for an unacceptable answer

Question #	1	2	3
Very acceptable			
Acceptable			
Unacceptable			

Total ____
Possible 9

PART II

POST-TEST SCORING KEY

1. Check your answers with the levels listed on page 10.

2. Check your task analysis with those found on pages 5-6.

3. Test this answer against the results you experienced with the evaluation exercise on page 9.

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USING A RESOURCE MANAGEMENT FORMAT TO PRODUCE MODULES

by

Darryl L. Sink, Ed.D.

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TITLE OF PACKAGE:	Using a Resource Management Format to Produce Modules
AUTHOR:	Darryl L. Sink, Ed.D.
INSTITUTION:	West Valley College, Saratoga, Calif.
INTENDED STUDENTS:	Community college faculty
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	None
REVISED:	Nov. 1, 1977

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OBJECTIVES OF UNIT

Overall Objective

It is intended that you will be able to reproduce the Resource Management Module Format, explain the function of each element in the format, and identify the situations in which the Resource Management Format may be profitably used. More specifically, the objectives for this program are:

Cognitive Objectives:

1. Identify situations in which the Resource Management Format can be profitably used.
2. List the four essential elements of the Resource Management Format.
3. Reproduce from memory the form for the Resource Management Format.
4. Explain the function of each element in the Resource Management Format (i.e., Overview, Objectives, Learning Activities and Criterion Referenced Evaluation).

Affective Objective

Be aware of and value the use of the Resource Management Format as a tool for managing student learning so as to make the use of the Resource Management Format a part of your teaching style.

RESOURCE MANAGEMENT MODULES

Format and Function

Most of us can agree that we would like to design our instruction for students in such a way as to more carefully meet individual student needs. Although you may agree that this is a worthwhile goal, it may seem to be a monumental task in light of having to design and produce so many instruction materials and activities. The use of Resource Management Modules is a way to greatly cut down on the time needed to design individualized instruction. Resource Management Modules help save you time in three ways:

1. They allow you to use already existing learning materials and activities.
2. They allow you to transfer some of the responsibility for learning to your students.
3. They provide an easy way to communicate instructions to your students.

To get started take a look at the sample Resource Management Module on the next three pages. Pay close attention to its structure and format rather than its content. After you review the module on the next three pages, continue this program.

MODULE I

TITLE: A PLAN FOR MASTERY TEACHING

Overview: This is the first of five modules designed to help you create and implement a Mastery Teaching Plan. In this module the contents and purpose of an entire program on Teaching For Mastery are introduced. In addition, a five-point plan for instructors to use in implementing a mastery learning program in their courses is presented and reasons given for conducting each step.

Objectives:

a) List the steps in a five-point plan for Teaching For Mastery.

b) List reasons why the five-point mastery teaching strategy is likely to aid more students in mastering objectives.

Learning Activities:

Choose one of the resources below and study it carefully.

a) Mastery Learning (Article in Education Technology, May, 1976).

b) Teaching For Mastery (a programmed text).

c) Steps in Teaching For Mastery (a filmstrip).

Evaluation:

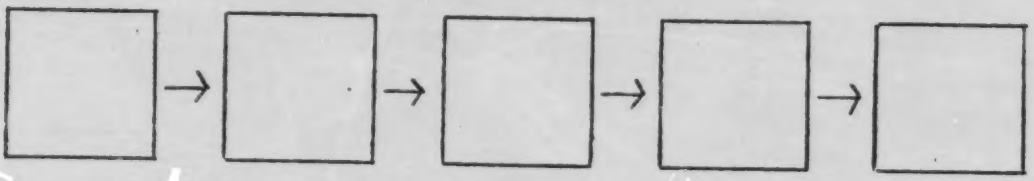
To check yourself take the self-test on the next page. If you score 90% or better, go to the next module in this series. At the end of the fifth module, you will take a mastery test over all five modules.

MODULE 1

SELF-TEST

Take the test below and correct it yourself using the answer sheet in Appendix B. Then, decide for yourself whether to continue on to the next section or go back for more study.

1. The boxes below represent the five-step plan for Teaching for Mastery. Write in the activity that is done at each step.

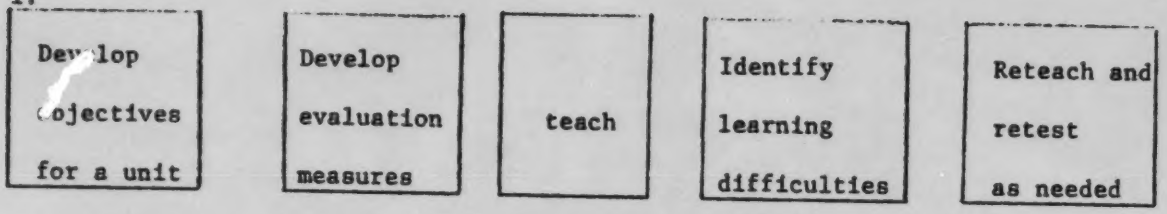


2. Describe in a brief paragraph why carrying out the five-step plan is likely to aid more students in mastering objectives.

MODULE I

ANSWERS FOR SELF-TEST

1.



2. A number of points that could be emphasized are given below. To be acceptable, your paragraph should include at least 4 of these.

   a) By setting out objectives, mastery of a topic is defined. In order to achieve mastery, one must decide first what it is.

   b) Objectives focus the energies of both teachers and students on the important tasks.

   c) Tests serve a diagnostic function in this plan.

   d) Frequent testing locates small errors before they have time to become big ones.

   e) A teacher is expected to use whatever teaching techniques are needed in order to help students learn.

   f) Students can return several times to difficult tasks by going through cycles of study - test - restudy.

Did you notice that no original instruction was provided in the sample Resource Management Module? This allows you to avoid reinventing already existing instructional materials but at the same time organizing and structuring them into a format that should allow you to maximize their learning potential for your students.

More lengthy Resource Modules are shown in the appendix of this manual, but they still use the same format.

Resource Management Modules are usually prepared in written form and contain three essential elements; i.e., objectives, learning activities, and evaluation procedures. These are given to the student who then uses the module to guide his or her own learning. You then supervise the student's progress and aid your students in mastering the required instructional objectives. In doing this, you usually work with the student on an individual or small-group basis. This, however, does not mean that use of Resource Management Modules prevents large-group instruction, or that they force students to continuously work alone. Far from it! Well-designed Resource Management Modules provide students with a wide variety of learning opportunities that include small and large-group activities as well as independent work.

> THE RULE IS: USE ANY INSTRUCTIONAL ACTIVITIES
> THAT WILL HELP THE STUDENT MEET THE
> INSTRUCTIONAL OBJECTIVES EFFECTIVELY AND EFFICIENTLY.

Resource Management Modules provide the student with three basic types of information.

Practice Question 1

List each of the three basic types of information in the space below.

1)

2)

3)

ANSWER

Resource Management Modules provide students with information about:

1) Learning objectives (i.e., what they will be expected to do after instruction is over).
2) Learning activities (i.e., what they are to do to learn the objectives).
3) Evaluation procedures (i.e., how they will be tested on the objectives).

Although Resource Management Modules are usually prepared in written form, they can be oral. For example, they can be "read" to a student by an instructor, an aide, a fellow student, or a tape recorder. This permits their use with poor or nonreading students and students with sight handicaps.

Practice Question 2

Check the following situations in which Resource Management Modules can be used effectively.

_____a. independent study

_____b. small-group instruction

_____c. large-group instruction

_____d. with students having special handicaps

ANSWER

All four should be checked.

There are many different ways to write modules. The type of module construction recommended in this program has three essential internal elements:

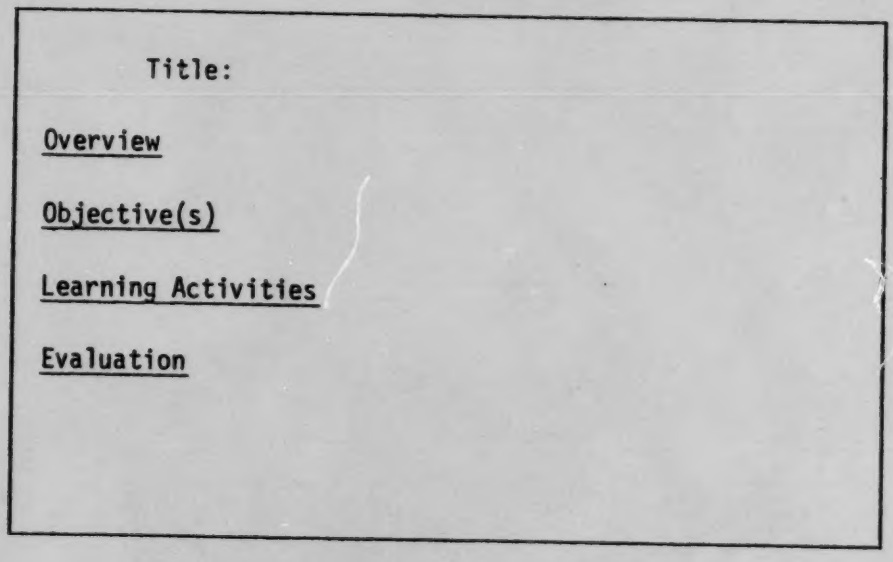
1. Objectives. Statements of what the student should be able to do following instruction. Action verbs such as list, construct, and demonstrate are preferred.

2. Learning Activities. Listing of worksheets, text selections, exercises, problems, films, filmstrips, community activities and instructor-led sessions which would provide students with the instruction and practice needed to achieve the learning objectives.

3. Evaluation. A description of how the student will be tested on the learning objectives. This includes sample test items, check list, etc., that will give the student an idea of how you will measure his or her achievement of the learning objectives.

In addition to these three essential elements we recommend you present the student with a general description or overview that states the purpose of the module and how it relates to things previously learned. A title also may be given.

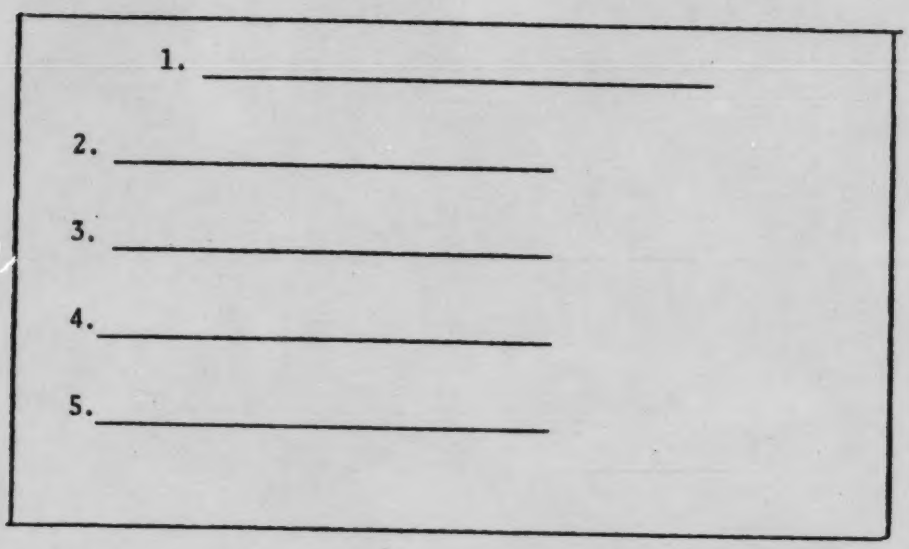
The manner in which you can organize this information in a Resource Management Module is shown below:



This Resource Management Module displays five types of information. The title is used for identification purposes. The four other types of information relate to the instructional task and are used by the student as a means of directing his/her learning.

Practice Question #3

Fill in the five types of information displayed on the Resource Management Module shown below:



ANSWER

Answers should have included:

1. Title
2. Overview
3. Objectives
4. Learning Activities
5. Evaluation

In the overview section you explain the purpose and put into perspective the activities in which the student will engage and, therefore, make the learning more meaningful and more interesting for the student.

In the objectives section you state what the student is to do after instruction is over in precise terms that the student can understand. The use of "behavioral" or performance objectives is common but you may opt for a more easily understood form of communication. The key idea here is that the objectives explicitly tell the student what is expected of him or her after instruction is over.

In the learning activities section you provide the student with a list of learning opportunities which you have identified as being useful for producing mastery of the lesson's objectives. The items in this section can cover a wide range of experiences from readings in a textbook or viewing a filmstrip to independent learning experiences in the community. The crucial features are that the experiences be accessible, stimulating to the student, and related to the instructional objectives to be mastered.

In the evaluation section you explain to the student how you intend to evaluate his/her performance. It is in this section that the student is told in specific terms the conditions and manner by which attainment of the lesson's learning objectives will be evaluated. In this section the student also is directed to available diagnostic tests and activities; and, if a written test is required for the evaluation, a sample test item or items may be given.

In making the title, you should be as descriptive as possible; but it is only for identification purposes.

Practice Question 4

Now, in the space below see if you can list the elements of a Resource Management Module and state the function of each:

Element	Function

ANSWER

Refer to the previous page

COGNITIVE POST-TEST

1. In your own words, list two advantages of using Resource Management Modules.

2. In which of the following situations would Resource Management Modules be profitably used? Check those that apply.

a. ____ independent study

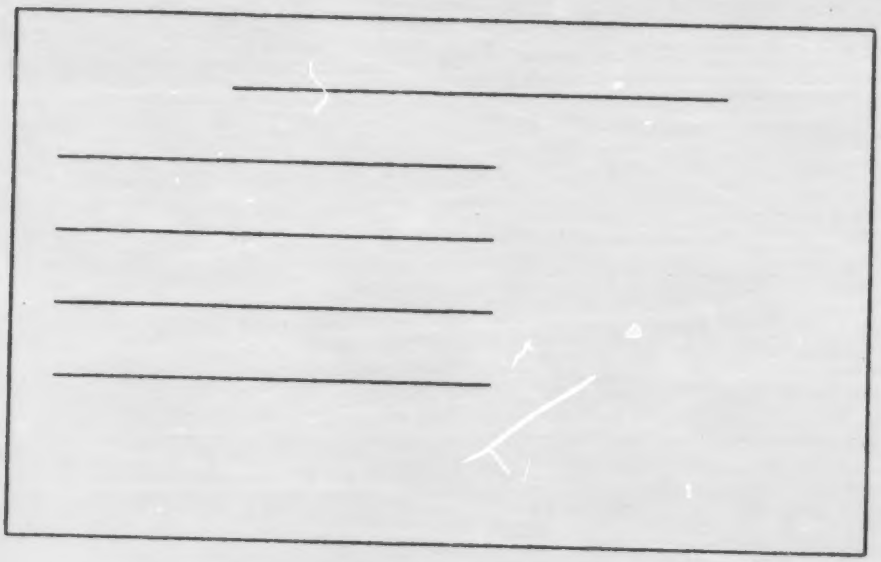
b. ____ large group instruction

c. ____ small group instruction

d. ____ with sight handicapped students

COGNITIVE POST-TEST (cont.)

3. Write the five elements of a Resource Management Module in the format suggested in this program:



4. Briefly explain the function of the following:

   a. title

   b. overview

   c. objectives

   d. learning activities

   e. evaluation procedures

AFFECTIVE POST-TEST

Use the three Resource Management Modules in the Appendix of the program to produce your own modules. (See page 14.)

ANSWERS TO POST TEST

1. Any of the three advantages and disadvantages listed below will be alright.

Advantages	Disadvantages
a. allows students to work at their own rate.	a. requires more and different resources.
b. provided more opportunity for student activity.	b. requires increase in instructor planning and organization.
c. allows the instructor to act more as planner and diagnoser, less as information provider.	c. student may waste time by inefficiently organizing own study.

2. All four should be checked.

3.

Title

Overview

Objectives

Learning Activities

Evaluation

ANSWERS TO POST TEST (cont.)

4. a. Title: The title is used for identification purposes only.

   b. Overview: The overview is given to explain the context and purposes of the lesson.

   c. Objectives: The objectives are given to explain precisely what the student will be expected to do after instruction is over.

   d. Learning Activities: The learning activities provide the instruction and practice needed to master the objectives.

   e. Evaluation Procedures: The evaluation procedure describes how the student will be measured on the objectives and often provides sample test items.

Now it's time for you to try your own Resource Management Module. To assist you in constructing a Resource Management Module, instruction is provided in the appendix on how to construct each of the three essential elements of a Resource Management Module. This instruction is provided via three Resource Management Modules: one on constructing objectives, one on selecting learning activities and one on evaluation. In addition to these three Resource Management Modules serving to guide you in learning how to construct the three essential elements of objectives, learning activities, and evaluation, they should also serve as models that you can use to design your own Resource Management Modules.

Now, good luck at constructing your Resource Management Module!

APPENDIX

I. Resource needed to do the three Modules in this appendix.

II. Resource Management Module 1

(Writing Performance Objectives)

III. Resource Management Module 2

(Evaluation)

IV. Resource Management Module 3

(Selecting Appropriate Learning Activities)

LIST OF RESOURCES NEEDED

TO DO THE FOLLOWING THREE MODULES

BOOKS

Baker, Robert L. and Schutz, Richard E., Editors, Instructional Product Development, New York, Van Nostrand, c. 1971.

Burns, Richard W., New Approaches to Behavioral Objectives, Dubuque, Iowa, Wm. C. Brown Company, Publishers, 1972.

Mager, Robert, Measuring Instructional Intent; or, Got a Match?, Belmont, California, Fearon Publishers, 1973.

Popham, James W. and Baker, Eva L., Establishing Instructional Goals, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1970.

Vargas, Julie S., Writing Worthwhile Behavioral Objectives, New York, New York, Harper and Row, Publishers, Inc., 1972.

SLIDE/TAPE/WORKBOOK PROGRAM

Objectives for Students. Contact Dr. Darryl L. Sink
10190 N. Foothill Blvd.
Apt. F7
Cupertino, Calif. 95014

II. WRITING PERFORMANCE OBJECTIVES

RESOURCE MANAGEMENT MODULE 1

TABLE OF CONTENTS

		PAGE
SECTION 1:	Identifying Performance Objectives.....	A-1
SECTION 2:	Writing Performance Objectives.....	A-3
	Answers to Self Test.....	A-5, A-6

MODULE 1

Section 1:

Writing Objectives
Identifying performance objectives

Overview:

Before you try to write objectives it's a good idea to see if "you know one when you see one". If you learn to identify performance objectives, you will be able to provide some of your own feedback when you write them. In other words, you will be able to evaluate your own work.

Objective:

After completing this unit of instruction, you should be able to:

Classify statements of intended student outcomes as performance or non-performance objectives.

Approximate time for completion: 30 minutes

Learning Activities:

Select any one of the resources below. If you have time, you might profit from looking at several of them. By studying different materials, you will become accustomed to the different terminology associated with objectives.

a. Read pages 1-9 (Chapters 1-3) in the programmed text by Burns, New Approaches to Behavioral Objectives.

b. Study part one of "Objectives for Students" (a slide/tape/workbook written from the student's point of view).

c. Read pages 27-39 (Chapter 4) in the programmed text by Vargas, Writing Worthwhile Behavioral Objectives.

d. Read pages 22-38 (Chapter 2) in the programmed text by Popham and Baker, Establishing Instructional Goals.

Evaluation:

Practice exercises and self tests accompany each of the resources. However, if you wish to check further on your ability to classify objectives, take the self test on the next page.

SECTION 1
SELF-TEST

Identifying performance objectives.

Beside each statement below write P if the statement is a performance objective and N if it is not.

_____1. From memory, identify the thirteen states of the Old South.

_____2. Given lists of symptoms, the learner will see the dangers of drug abuse.

_____3. Given a set of objects, order them from smallest to largest in volume.

_____4. Given a reading assignment, the student will study the designated pages.

_____5. Given information on the rate of population growth in the world, realize that overpopulation is a major threat to man's survival.

_____6. Given a sentence with the verb in the passive voice, rewrite the sentence with the verb in the active voice.

_____7. Write a main address and a return address on an envelope using the correct form when presented (verbally) with the name and address of a company.

_____8. Given fractions with denominators of 100, write the fraction as a decimal.

_____9. Demonstrate a knowledge of the geography and culture of South America through appropriate activities and discussion.

____10. Given pictures of persons at work or descriptions of their jobs, identify those that provide community services.

Answers are on page A-5.

MODULE 1

Section 2:

Writing performance objectives

Overview and rationale:

In this unit you practice writing objectives. First, practice is given in rewriting statements to make them objectives. Then, you practice writing objectives from scratch. The purpose of writing objectives is to describe what you want students to learn to do. When objectives are clear, teachers can spend their energies productively.

Objectives:

After completing this unit, you should be able to:

a. Rewrite a non-performance statement to produce a performance objective.

b. Construct performance objectives that include conditions of performance, behavioral terms, and standards of acceptability.

Approximate time for completion: 50 minutes

Resources:

Use resource "a" below and then one of the following two resources:

a. Read pages 42-63 (Chapter 5) in the programmed text by Vargas, Writing Worthwhile Behavioral Objectives.

b. Read pages 10-21 (Chapter 4) in the programmed text by Burns, New Approaches to Behavioral Objectives.

c. Read pages 66-93 (Chapter 6) in the programmed text by Vargas, Writing Worthwhile Behavioral Objectives.

Evaluation:

Practice exercises and self tests accompany each of the resources. However, if you wish to check further on your ability to write objectives, take the self test on the next page.

SECTION 2
SELF-TEST

Writing performance objectives.

1. Rewrite each of the statements below to produce a performance objective.

   a. Each student will learn to demonstrate knowledge of subject-verb agreement in sentences.

   _____

   _____

   b. Given a dictionary, the student will show that he can use it appropriately.

   _____

   _____

2. Select one of the topics below and write two performance objectives for it. Each objective should include conditions of performance and behavioral terms. Standards of acceptability may be included if you wish.

   Select one: plant growth
   addition of fractions
   capitalization

   a. _____

   _____

   b. _____

   _____

3. Choose any topic that you wish and write two performance objectives for it. Each objective should include conditions of performance and behavioral terms. You may wish to include standards of acceptability.

   Topic selected: _____

   a. _____

   _____

   b. _____

   _____

Answers are on pages A-5 and A-6

Section 1

Identifying performance objectives

P 1.

N 2. "will see" is an inadequate performance term.

P 3.

N 4. This study describes learning activities of students, not outcomes from engaging in study.

N 5. "realize" is not a performance verb.

P 6.

P 7.

P 8.

N 9. This is a general objective that might be restated to produce several performance objectives.

P 10.

Section 2

Writing performance objectives

1. a. Several objectives are possible. Some possibilities are:

Given several sentences, select those in which the subject and verb agree.
Given sentences, select those containing present, past, and future forms of the verb to be.
Write at least five sentences in which the subject and verb agree.

b. There are many objectives that could be written. Some possibilities are:

Given a list of ten words, locate each in a dictionary within a five-minute period.
Given a list of words and a dictionary, identify and write at least two definitions for each.
Use a dictionary to find the origin of any given words (e.g., Latin, French, etc.)

2. Several examples are given for each topic. Of course, your objectives do not need to be the same as these. They should, however, contain the same parts.

plant growth:

a. Design and carry out an experiment to test the effect of water on plant growth.

b. From memory, list at least four conditions or materials necessary for plant growth.

Section 2 (continued)

c. Given a growing plant, measure and record the height of the plant during a two-week period.

addition of fractions:

a. Given any pair of fractions with like denominators, find their sum.

b. Given a list of fractions, select those that are equivalent.

c. Identify the numerator and denominator in a fraction.

capitalization:

a. From memory, list at least three kinds of words that are capitalized.

b. Given a list of mixed common and proper nouns, identify the nouns that are capitalized.

c. Given a paragraph containing ten errors in capitalization, correct at least nine of the errors in five minutes or less.

III. EVALUATION

RESOURCE MANAGEMENT MODULE 2

MODULE 2

Constructing tests that match the objectives.

Overview:

Robert Mager states in his book, Measuring Instructional Intent, that, "When it is important that one's instruction be successful, it would also seem important to bestir oneself to determine whether one has succeeded as intended". This Module provides you with practice in writing tests that match your objectives.

Objectives:

a. Given instructional objectives, you will select test items that match the objectives.

b. Given instructional objectives, you will write matching test items.

c. Given your objectives and matching test items, you will be able to use an Objective/Item Checklist to determine if your objectives and tests match.

Approximate time for completion: 2 hours

Learning Activities:

Do both "a" and "b".

a. Read Measuring Instructional Intent by Robert Mager.

b. Study Part II of Objectives for Students, a slide/tape/workbook designed from the student's point of view.

Evaluation:

Practice exercises accompany each of the learning activities. Evaluation will be self checked in this Module by your writing your own objectives and test items and then using the Objective/ Test Item Checklist in Robert Mager's book.

IV. SELECTING APPROPRIATE LEARNING ACTIVITIES

RESOURCE MANAGEMENT MODULE 3

MODULE 3

Section 1:

Selecting Appropriate Learning Activities

Overview:

When you know what you want students to do after instruction is over and how you will test them, all that remains is to select appropriate learning activities. This Module gives you practice in selecting learning activities that match your objectives.

Objectives:

a. Select appropriate learning activities for given objectives.

b. Distinguish among different types of appropriate practice.

c. Given situations in which a teacher is teaching students to do something, identify those that have provided knowledge of results.

d. Identify instructional irrelevancies when given an instruction sequence.

e. List five factors that add interest to instructional learning activities.

Approximate time for completion: 2 hours

Learning Activities:

a. Read pages 171-206 in Instructional Product Development by Robert L. Baker and Richard E. Schutz.

b. Study Part III of Objectives for Students (a slide/tape/workbook program from the student's point of view.)

MODULE 3

Section 2:

Selecting Appropriate Learning Activities

Overview:

One other important factor in selecting appropriate learning activities is to try to choose activities that meet different learner characteristics. Learners often have different learning styles and competencies. To accommodate these differences, it is important to provide options in learning modes, reading levels, etc., where it is reasonably possible and where materials are available that match your objectives. This section will help you identify relevant learner characteristics, provide you with a basic bibliography for searching out materials, and give you a final checklist of rules to follow in making your Management Resource Modules.

Objectives:

a. List four important things to know about your students.

b. Select learning activities for your own Management Resource Module that match your objectives and your learner's characteristics.

Learning Activities:

Do the following:

a. Write the general learner characteristics of your students by answering the questions on the learner analysis worksheet on page C-3.

b. Use the final checklist on page C-4, along with your objectives and learner analysis information to select learning activities that will best meet the characteristics of your learners and the characteristics of the learning task at hand.

Evaluation:

In this case use the final checklist to determine whether you have selected appropriate learning activities for your Module.

LEARNER ANALYSIS WORKSHEET

What Does Your Learner Look Like?

What is his Subject-Matter Competence?

1. At what levels are the students' current knowledge and skills in the subject-matter area?

2. What background experiences do the students have in the subject-matter area?

3. Are the students likely to have any major misconceptions in the subject-matter area?

What are his Attitudes?

4. What are the general attitudes of the students toward the instructional content? Are there any subtopics within the content toward which the trainees are likely to feel very positive or very negative?

5. What preferences for instructional format and media do the students have?

At what Level is his Language?

6. What is the language level of the students? How much of the specialized terminology is in their vocabularies?

7. What preferences for style of language (e.g., conversational or formal) do the students have?

What Tool Skills does he Possess?

8. Do the students have any sensory-perceptual deficiencies that will require special attention?

9. Can the students handle the instructional materials and equipment?

FINAL CHECKLIST

FOR SELECTING APPROPRIATE LEARNING ACTIVITIES

Yes	No	Does the activity:
		a) Provide practice on the objective?
		b) Provide feedback?
		c) Avoid the inclusion of irrelevancies?
		d) Provide interest?
		e) Provide for different learner preferences?
		f) Provide for different basic learning competency?

You should be able to check "yes" on all of these or change the learning activity in such a way that you can give a "yes" answer. Hint: you can often change materials by providing your own practice, etc. (e.g., you can provide practice sheets if practice is not part of the learning material).

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A PROJECT OF THE LEAGUE FOR INNOVATION IN THE COMMUNITY COLLEGE

THE ADULT LEARNER

By

Martha R. Newby

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TITLE:	The Adult Learner
AUTHOR:	Martha Newby
INSTITUTION:	Maricopa County Community College District
INTENDED STUDENTS:	Community College faculty
ESTIMATED WORKING TIME:	20 minutes
MATERIALS NEEDED:	None

FIELD TEST COPY

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INTRODUCTION

If you are over sixteen years of age, by some definition, you are an adult. Yet other laws, regulations, restrictions and privileges are based on arriving at other magical chronological levels. Age doesn't always indicate how mature a person may be.

Andragogy (teaching adults) assumes that the point at which an individual achieves a self-concept of essential self direction is the point at which he psychologically becomes an adult.

(Adults are not just "big" little people; they have characteristics. As an instructor of adults, you and your students will have a better learning experience if you are aware of and incorporate these characteristics in your planning.)

This package is designed to give you an opportunity to identify the characteristics of the adult learners and then to consider these in planning and offering courses and/or programs for adults. Begin with objectives for the units and proceed through the package at your own speed.

OBJECTIVES OF UNIT

Overall Objective

The student will be able to plan better adult learning experiences by knowing the characteristics of the adult learners.

Sub-Objectives

1. The student will: Define "Adult" by his or her own standards.
2. Consider how programs he/she is now offering violate the concept of Andragogy.
3. After completing the package, briefly describe how he/she will change or modify the program planning or teaching he/she is doing for adults, by application of knowledge learned about the characteristics of the adult learner.

Sometimes persons are said to be adults when they reach a certain chronological age. Others base adultness on mental maturity, gray hair or grandchildren.

Practice Question #1

When is a person an adult to you?

Feedback

Your answer may come from previous knowledge of adult education or from your own ethnic, cultural or educational background. Wherever your facts come from, they are incorporated in your thinking and are yours to use.

Some adult educators state that from the age of 16 years a person whose formal education has been interrupted is said to be an adult learner. Andragogy assumes that as a person matures he accumulates a growing reservoir of experience that becomes an increasing resource for learning. Also his readiness to learn becomes oriented more to developmental tasks of his social roles. His time perspective changes from one of postponed application of knowledge to one of immediacy of application.

Practice Question #2

As an educator of adults are you now using teaching methods that will meet the andragological assumptions?

Feedback

If your answer is yes, good for you! Many educators are utilizing these assumptions in their programs already, but just have not labeled them. Let's move on and look at some of the characteristics of the adult learner.

The following are some of the characteristics of adult learners that should be considered in planning programs for, and in teaching adults:

1. Adults have an innate desire to learn.
2. Adults have a need for self fulfillment.
3. If adult goals and needs are not consistent with those of the learning episode(s) he will value his/hers over the teacher's and will withdraw physically and psychologically.
4. Adults are responsible learners if they know what to expect.
5. Adults tend to learn more effectively in a comfortable setting.
6. Adults will respond actively in an environment of mutual trust.
7. Adults prefer to actively participate in the learning process.
8. The adult learner brings a vast store of past experience to this learning episode.
9. The adult uses past experience as a base upon which to build new experiences.
10. Adults are problem solvers.
11. Adults can deal with abstractions and ambiguity and recognize that there is no "one right answer" in most situations.
12. Adults have a strong need for affiliation which they seek to meet in the learning situation as well as outside of it.
13. Adults view teachers as facilitators.
14. Adults expect the opportunity to evaluate the learning episode.
15. Adults usually will not accept authoritarian environments and distant teacher/learner roles.

Practice Question #3

How many of the characteristics of an adult learner listed above can you list without looking back?

Feedback

You may have remembered those that apply to you. Are you teaching the adult learner in your program the way you'd like to be taught?

Know knowledge should be used right away and should be of immediate value to the adult learner. Now stop and think how you can change, redesign or improve your current program for the adult learner by using your new knowledge.

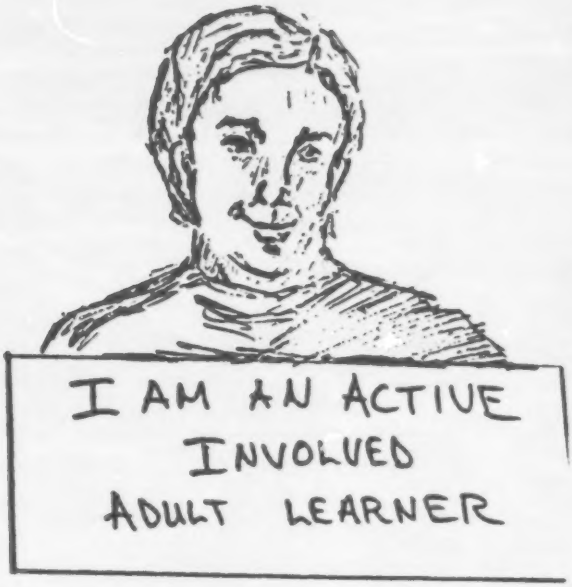
Practice Question # 4

Think through and then write seven ways you can improve your program by implementing the knowledge you now have about the characteristics of the adult learner.

Feedback

Congratulations, you have applied your new knowledge to an immediate problem. You and your student adult learner will both have a better learning experience.

Check your memory with the Post-Test on Page 7. The answers follow on Page 8



POST TEST

1. Write your definition of an adult learner.

2. What are the characteristics of the adult group you work with?

3. Identify at least 10 characteristics of the adult learner that you have learned in this package.

4. Give a brief description of how you will utilize your knowledge to improve your adult teaching program.

Attitude Measure:

The ideas in this package were:

Stimulating					Uninteresting
Important					Unimportant
Well Summarized					Too detailed
Explanatory					Confusing

ANSWERS TO THE POST TEST

1. Whatever the student defines as an adult.

2. Whatever group of student the teacher will be working with.

3. Any 10 of the following:

    1. Adults have an innate desire to learn.
    2. Adults have a need for self fulfillment.
    3. If adult goals and needs are not consistent with those of the learning episode(s) he will value his/hers over the teacher's and will withdraw physically and psychologically.
    4 Adults are responsible learners if they know what to expect.
    5. Adults tend to learn more effectively in a comfortable setting.
    6. Adults will respond actively in an environment of mutual trust.
    7. Adults prefer to actively participate in the learning process.
    8. The adult learner brings a vast store of past experience to this learning episode.
    9. The adult uses past experience as a base upon which to build new experiences.
    10. Adults are problem solvers.
    11. Adults can deal with abstractions and ambiguity and recognize that there is no "one right answer" in most situations.
    12. Adults have a strong need for affiliation which they seek to meet in the learning situation as well as outside of it.
    13. Adults view teachers as facilitators.
    14. Adults expect the opportunity to evaluate the learning episode.
    15. Adults usually will not accept authoritarian environments and distant teacher/learner roles.

4. Statement of planning or revision incorporating as many as possible of above into developing an adult learning experience.

Answer Sheet for Practice Questions

1.

2. ____Yes ____No

3. 1)

2)

3)

4)

5)

6)

7)

8)

9)

10)

4. 1)

2)

3)

4)

5)

6)

7)

Adult Learner/Newby

Answer Sheet for Post Test

1.

2.

3. 1)

2)

3)

4)

5)

6)

7)

8)

9)

10)

4.

DATA REVISION SHEET

1. Did this package stimulate you to really consider your students in light of their being adult learners?

2. Did this package encourage you to change or modify your program due to a new understanding of the adult learner's characteristics?

3. How could this package be improved for other students?

4. Would you like more packages on the principles and practices of Adult Education?

5. Would you like more packages on teaching adults?

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BASIC DRUG INFORMATION

FOR TEACHERS

by

Colleen Aalsburg Wiessner

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TITLE OF PACKAGE:	Basic Drug Information for Teachers
AUTHOR:	Colleen Aalsburg Wiessner
INSTITUTION:	Comprehensive Drug Service, Midland, Mich.
INTENDED STUDENTS:	Upper elementary through High School Teachers
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	None
REVISED:	Nov. 1, 1977

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INTRODUCTION

Have you ever had a student ask you a question about drugs? Did you know the answer? Would you know it if they did ask? Have you ever overheard kids talking about drugs and not known exactly what they are talking about? Or, have you ever had someone ask you where they could go to get help with a drug problem? The effect of not knowing that could be tragic.

Drugs are a prevalent factor in today's society. Students are heavily involved with them. You are heavily involved with students. You need to have some basic drug information. You cannot walk around with blinders on, or hide your head in the sand.

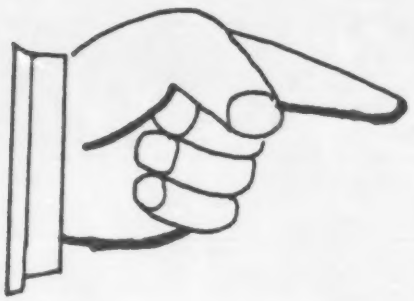
Unfortunately, drug information is not all fun and games. It takes some work to learn about drugs. You will be able to get through the following packet in 20 - 30 minutes of concentrated work. If you are still interested after packet I, I promise you packet II will be more interesting and more experiential.

After studying this packet you will be able to recall basic drug information. In the packet you will learn the 5 main drug categories and their <u>general</u> effects on people. You will also learn a few representative drugs in each category. You will be given a chance to demonstrate these things in given situations. Finally, you will become acquainted with some resources for getting help for drug problems.

Why don't you try this packet and see how you do. I will be wanting your suggestions for improvement at the end--- keep them in mind as you go along. I hope you will find it an enjoyable and relevant experience.

Practice Exercises

Rather than memorizing each drug and what it does, it is easier to think of drugs as fitting into categories. Drugs can be broken down into 5 categories. They are:



HALLUCINOGENS

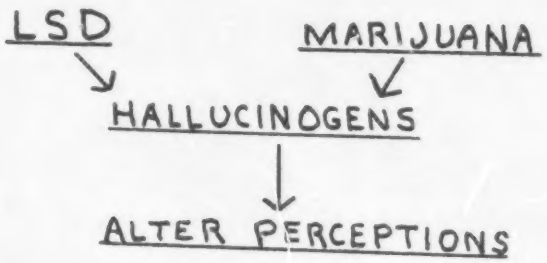
STIMULANTS OR UPPERS

SEDATIVE-HYPNOTICS OR DOWNERS

NARCOTICS

SOLVENTS

All drugs within a category act in a similar way. You can expect the same general effect on the body from each drug within a category.



1. What are the 5 types of drugs which have been named so far?

_____

_____

_____

_____

_____

That was a little bit difficult wasn't it? The five categories to remember are:

HALLUCINOGENS
STIMULANTS OR UPPERS
SEDATIVE - HYPNOTICS OR DOWNERS
NARCOTICS
SOLVENTS

If you were able to name 4 or 5 of the categories you are doing extremely well. Keep up the good work. If you only got 2 or 3 of the categories it would be helpful to read them over a couple of times to yourself. You will be building on these categories throughout the packet. It may be easier for you to remember Uppers and Downers in place of Stimulants and Sedative-Hypnotics. They are often called that by young people too. Feel free to use either name. I will be using them interchangably.

HALLUCINOGENS

The first category of drugs is HALLUCINOGENS. Hallucinogens are often referred to as the Psychedelic drugs. Examples of hallucinogens are:

LSD
MARIJUANA
HASHISH
BELLADONNA ALKALOIDS

Read that list over a couple of times.

2. From the following drugs circle at least two drugs that belong to the category Hallucinogens.

LSD	Tranquilizers	Gasoline	Marijuana	Heroin
Alcohol	Belladonna Alkoloids	Pep Pills	Speed	Hashish

You could have circled any of the following drugs -- LSD, Marijuana, Hashish, Belladona Alkaloids. Did you circle two of them? Very good. It is difficult to remember every drug in a category. If you remember just a few examples that will be sufficient.

STIMULANTS

Many stimulants are in common use. The two main names to remember here are:

AMPHETAMINES and COCAINE

Amphetamines are popularly known by such names as diet pills, pep pills, NoDoz and Speed. Caffeine (coffee, tea and cola) is also a stimulant.

3. Now, can you circle at least two drugs from the category of Stimulants?

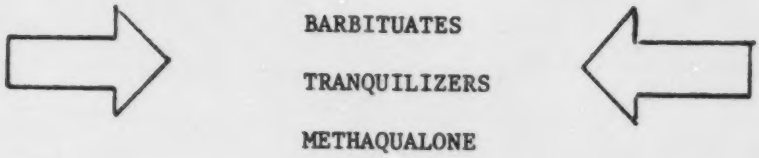
LSD	Speed	Barbs	Hashish	Belladonna Alkoloids
Heroin	Gasoline	Tranquilizers	Caffeine	Glue
Cocaine	Diet Pills	Amphetamines	Pep Pills	Freon
NoDoz	Paint Thinner			

These were a little bit easier to remember, weren't they? The possibilities are speed, caffeine, diet pills, amphetamines, pep pills, NoDoz, and cocaine.

You are really catching on if you were able to circle more than two. Remember that two major stimulants to remember are amphetamines and cocaine.

SEDATIVE - HYPNOTICS

Sedative - Hypnotics or Downers includes a wide range of drugs. The major ones you need to know are:



This category includes all forms of these drugs - so you can see that there are quite a few drugs in this category. Were you surprised to see alcohol included? Yes - Alcohol is a drug!

4. Getting tired of circling? Place a D in front of at least two drugs that belong in the category of Downers.

_____ LSD	_____ Heroin	_____ Alcohol
_____ Barbituates	_____ Cocaine	_____ Pep Pills
_____ Gasoline	_____ Methaqualone	_____ Amphetamine
_____ Speed	_____ Methadone	_____ Tranquilizers
	_____ Caffeine	

Are all of the drugs beginning to run together? Well, you are still doing well if you placed a D in front of Alcohol, Barbituates, Tranquilizers, or Methaqualone. There are just two more categories to go!

NARCOTICS

Narcotics are often referred to as the "hard" drugs. Representatives in this group are:

HEROIN
MORPHINE
OPIUM
CODEINE
METHADONE

The strength of these drugs puts them in a category by themselves.

5. Place an N in front of at least two representatives of the Narcotics category:

____ LSD
____ Marijuana
____ Opium
____ Barbs
____ Pep Pills
____ Heroin
____ Gasoline
____ Tranquilizers
____ Methaqualone
____ Methadone
____ Morphine
____ Glue
____ Freon
____ Codeine
____ Speed

Possibilities for this exercise were -- Opium, Heroin, Morphine, Methadone, and Codeine. You are doing very well if you have remembered two drugs in each category so far. There is just one category left.

Keep your chin up!

SOLVENTS

Solvents are the last and probably the easiest category.

Solvents are easier to remember because they sound like things which you take off your own shelf. In fact they are! Solvents are common household products which have been used to obtain a "high" by sniffing them. Examples are:

GLUE	GASOLINE
FREON (found in spray cans)	PAINT THINNER
CLEANING FLUID	LIGHTER FLUID

These are the major solvents, but don't be surprised to hear about people trying just about anything!

6. Please circle or underline at least two solvents out of this list:

LSD

Gasoline

Tranquilizer

Codeine

Paint Thinner

Marijuana

Speed

Methadone

Freon

Hashish

Lighter Fluid

Pep Pills

Glue

Barbs

Morphine

Cleaning Fluid

Methaqualone

You are doing very well! You found quite a few of those, didn't you? Check yourself against this list:

Gasoline

Paint Thinner

Freon

Lighter Fluid

Glue

Cleaning Fluid

Now, you are done with the hard part. It's time to find out exactly what these drugs do.

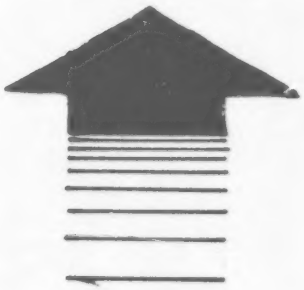
DRUG EFFECTS

Each drug category, as I said before, represents a general effect which a person gets from the drugs in that category. Now you will be learning what those are. I don't want you to struggle with these. It will be enough if you can just remember a few key words or a key word for each category.

HALLUCINOGENS ALTER PERCEPTIONS

They cause temporary changes in vision and hearing, sense of time and environment are altered, and reactions are magnified. Think of the root of the word: HALLUCINOGENS ——> HALLUCINATE. These changes and effects will be greater in LSD and Belladona Alkaloids than in marijuana, because they are stronger, but they both ALTER PERCEPTIONS.

STIMULATE or INCREASE are the words to remember for STIMULANTS. They increase wakefulness, alertness, arousal, activity, talkativeness, restlessness and sensations. They are often called uppers because they "up" everything. Drugs like pep pills and Speed in this category help you to remember this.



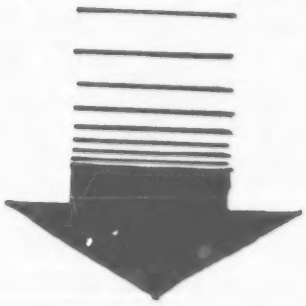
STIMULANTS INCREASE OR

STIMULATE BODY FUNCTIONS

SEDATIVE - HYPNOTICS act in the opposite way. Sedative - Hypnotics DEPRESS everything. They decrease inhibitions, judgement, clear speech, coordination and reflexes. They are often referred to as DOWNERS because they"down" everything. Tranquilizers are a trigger word to remember in this category.

Also -- think of the root:

SEDATIVE ——) SEDATE.



DOWNERS DEPRESS OR SEDATE BODY FUNCTIONS.

NARCOTICS act to separate the person from their environment. They create drowsiness, inability to concentrate, apathy, decreased activity, sense of detachment and drive reduction (sex, hunger, agression). They were originally used as pain relievers (and still are to some extent in serious cases). They are so strong that they act to DULL or CLOUD everything to the person. Narcotics cause MENTAL CLOUDING.

NARCOTICS CLOUD EVERYTHING

SOLVENTS act much like downers. The inhaling of the solvent causes a depression of body functions on a lesser level. The reason for this is that solvents CUT OFF body functions by the inhalation of these substances. Often it is oxygen.starvation which causes what is called the "high" from solvents. They create drowsiness and a STUPOR.

SOLVENTS CUT-OFF BODY FUNCTIONS

7. Let's take a little time now and see if you can name each of the five categories of drugs.

(1) _____

(2) _____

(3) _____

(4) _____

(5) _____

How did you do? Here's a list to check yourself by:

NARCOTICS

SOLVENTS

STIMULANTS

DOWNERS

HALLUCINOGENS

If you got three or less, I would suggest you review the previous information and try again.

8. Now that you know the five categories of drugs, let's see how you are at remembering the cues for the function of each drug category. Listed below are the names of the five categories of drugs. Write down the key word - or words - that describe its effect.

Narcotics (1) _____

Solvents (2) _____

Stimulants (3) _____

Downers (4) _____

Hallucinogens (5) _____

How did you do? If you remembered a word or two for most of them, you are right on track! Here's a list to check yourself by:

NARCOTICS	Clouding
SOLVENTS	Cut-off
STIMULANTS	Increase or Stimulate
DOWNERS	Decrease, Depress or Sedate
HALLUCINOGENS	Alter

These facts are important to remember. Why don't you try to match up the effects and the categories in the following:

9. A student is acting strangely in your class. When you confront him after class he decides to confide in you. He tells you that he has taken a drug which has affected his sight and general perception of things. You note to yourself that this means he has probably taken _____.

10. A group of students are discussing an acquaintance who is using a drug which makes him apathetic, inactive and detached. They are most likely talking about _____

_____.

If you said (9) Hallucinogen and (10) Narcotic you are really doing well at identification. In fact, you are now very close to being done.

There is just one thing left for you to do in this packet. Suppose you become involved in a complicated situation. You don't have enough information and the person really needs outside help. Where would you send someone if they came to you and asked you where to go? What if one of your students has overdosed? Who would you call?

In communities there are several agencies designed to deal specifically with substance abuse. I've listed several agencies that may be available in your area:

ALCOHOL SERVICES deals with alcohol problems.

COMPREHENSIVE DRUG SERVICES deals with all other drug problems which require a professional's help. All dealings are confidential.

CRISIS INTERVENTION AND DRUG INFORMATION CENTER may be your last resort if the situation is critical. This should be used in emergency overdose situation.

You should look up the phone numbers and addresses in your local telephone book, and have them readily available in case of an emergency.

11. Try writing the name (and if a telephone book is available the phone number and address) of two sources of help with drug problems.

_____

_____

_____

_____

I would like you to remember two resources for help, but even if you remember one — you will be able to pass that on if asked. Did you get two off this list? The name will guide you in the phone book if you couldn't remember the location right away.

Alcohol Services

Comprehensive Drug Services

Local Hospital Emergency Room

Crisis Intervention &

Drug Information Center

POST TEST

1. Please list the five main drug categories on the left. On the right list a key word or words to describe what this category of drugs does to the body.

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

2. The following is a list of common drugs. Write the category to which the drug belongs on the line in front of the drug name. You should be able to identify at least two drugs in each of the 5 categories.

_____ LSD	_____ Marijuana
_____ Belladonna Alkoloids	_____ Barbituates (Reds, Barbs)
_____ Heroin	_____ Amphetamines
_____ Pep Pills	_____ NoDoz
_____ Freon	_____ Coffee (caffeine)
_____ Mescaline	_____ Alcohol
_____ Cocaine	_____ Gasoline
_____ Glue	_____ Tranquilizers
_____ Methaqualones	_____ Opium
_____ Codeine	_____ Methadone
_____ Paint Thinner	_____ Lighter Fluid
_____ Speed	_____ Diet Pills

3. A student lags behind after class and seems to want to talk to you. After everyone has left he approaches you and tells you he knocked his sister's purse off the table and some pills fell out. She claimed they were to help her in dieting. You know that they are amphetamines. Tell the student what category they probably belong to and what their general effect on the body is.

4. Students often like to think they are pulling something over on people. You over hear some students talking loudly in your room before class. Thinking you will not understand they drop the following comments.

"I helped my kid brother with the toy model last night. I showed him what to do with the glue."

"Yeah -- well my mom needed some help with the house work and I took care of all the cleaning materials."

"I helped my dad out in the garage with some old gasoline and things. It was great fun."

What category of drugs are they most likely referring to and how do they act on their bodies?

5. a. What are two sources of help for people who have substance abuse problems?

_____

_____

POST TEST

(Attitudinal)

6. How necessary do you feel this information is for you? (Check one)

Not at all _____

Somewhat important _____

Very necessary _____

7. The content or ideas in this package were:

Stimulating						Uninteresting
Important						Unimportant
Well Summarized						Too Detailed
Explanatory						Confusing

8. This package could be improved by

_____

_____

9. Would you recommend this packet to other teachers?

Yes _____ No _____

ANSWERS TO POST TEST

1.

Hallucinogens	Alter Perceptions
Stimulants (Uppers)	Stimulate C.N.S.
Sedative-Hypnotics (Downers)	Depress C.N.S.
Narcotics	Mental clouding
Solvents	Depress body systems (Stupor)

2.

Hall.	LSD	Hall.	Marijuana
Hall.	Belladonna Alkoloids	Down.	Barbituates
Nar.	Heroin	Uppers	Amphetamines
Stim.	Pep Pills	Uppers	NoDoz
Sol.	Freon	Uppers	Coffee (caffeine)
Hall.	Mescaline	Down.	Alcohol
Stim.	Cocaine	Sol.	Gasoline
Sol.	Glue	Down.	Tranquilizers
Down.	Methaqualones	Nar.	Opium
Nar.	Codeine	Nar.	Methadone
Sol.	Paint Thinner	Sol.	Lighter Fluid
Stim.	Speed	Stim.	Diet Pills

3. Uppers or Stimulants

Stimulate

4. Solvents

Depress body systems

5. Comprehensive Drug Services

   Alcohol Services

   Crisis Intervention & Drug Information Center

   Local Hospital Emergency Room